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EXAMINER

BOTTS, MICHAEL K

ART UNIT PAPER NUMBER

2176

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/812,906

Applicant(s)

ERICSON, PETTER

Examiner

Michael K. Botts

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2006 and 09 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date June 16, 2006.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This document is a Non-Final Office Action on the merits. This action is responsive to the following communications: Amendment, which was filed on March 22, 2006, and a Supplemental Amendment, which was filed June 9, 2006.
2. Applicant's attention is directed to the fact that a new examiner has been assigned to this case. The Examiner's name and telephone number are provided below.
3. The claims addressed in this Office Action are those as submitted in the Supplemental Amendment, which was filed on June 9, 2006.
4. Claims 1-39 are currently pending in the case, with claims 1, 9, 13, 16, and 23 being the independent claims.
5. Claims 1-39 are rejected.

Information Disclosure Statement

6. A signed and dated copy of applicant's IDS, which was filed on June 16, 2006, is attached to this Office Action.

The Specification

7. Applicant is required to update the status (pending, allowed, etc.) of all parent priority applications in the first line of the specification. The status of all citations of U.S. filed applications in the specification should also be updated where appropriate.

Claims Rejections – 35 U.S.C. 112, First Paragraph

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1-39 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. "Marks" and "grid points," either individually or in combination are not mentioned in the specification.

9. In the interest of compact prosecution, the application is further examined against the prior art, as stated below, upon the assumption that the applicants may overcome the above stated rejection under 35 U.S.C. 112, first paragraph.

Claims Rejections – 35 U.S.C. 112, Second Paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Dependent **claims 11, 12, 15, and 22** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. A single claim which claims

both an apparatus and the method steps of using the apparatus is indefinite under 25 U.S.C. 112, second paragraph. See, Ex Parte Lyell, 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990). See also, MPEP 2173.05(p).

Claim 11 is an improper hybrid claim in that it claims a printer (apparatus), yet depends from the method of claim 9.

Claim 12 is an improper hybrid claim in that it claims a computer-readable medium (apparatus), yet depends from the method of claim 9.

Claim 15 is an improper hybrid claim in that it claims a computer-readable medium (apparatus), yet depends from the method of claim 13.

Claim 22 is an improper hybrid claim in that it claims a computer-readable medium (apparatus), yet depends from the method of claim 16.

11. **Claims 1-39** recite the limitation "marks." There is insufficient antecedent basis for this limitation in the claims.

It is noted that the term "marks and grid points" was added by an Amendment, filed October 11, 2005, which deleted the limitation wherein "*the position coding pattern utilizes displacements of dots in relation to a raster to code different symbol values*" and replaced it with the following: "*each position is encoded by directions of displacements between a plurality of marks and grid points.*" The Examiner reads the claim limitation "mark" to be the same as a "dot," which was disclosed in the specification, and the term will be so read for the remainder of this Office Action.

12. **Claims 1-39** recite the limitation "grid points." There is insufficient antecedent basis for this limitation in the claims.

Upon review of the specification and the claims, the term "grid point" is read by the Examiner as non-limiting non-functional descriptive language which merely describes the regular appearance of the "dots" or "marks" on the page. See discussion of "marks," above. The term "grid point" has no antecedent basis in either the specification or in the claim before it was amended. It is noted that a "grid" is a series of intersecting "grid lines," usually in perpendicular orientation. A "grid point" is read as the intersection of two "grid lines." Marks made in a grid-like pattern could be imagined as being located at the intersections of imaginary grid lines, or at the "grid points." Because the term is not specifically defined and subject to conjecture, yet fits the disclosed use of the "dots," or "marks," and in order to give meaning to the claim term, the Examiner reads the term "grid points" as non-limiting and merely descriptive of the general placement of the "marks," and the term will be so read for the remainder of this Office Action.

13. In the interest of compact prosecution, the application is further examined against the prior art, as stated below, upon the assumption that the applicants may overcome the above stated rejection under 35 U.S.C. 112, second paragraph.

Claims Rejections – 35 U.S.C. 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

14. Dependent **claims 11, 12, 15, and 22** are rejected under 35 U.S.C. 101 because the claimed inventions are directed to non-statutory subject matter. As noted below, claims 11, 12, 15, and 22 are directed to neither a “process” nor a “manufacture,” but rather embrace and overlap two different statutory classes of invention set forth in 35 U.S.C. 101, which is drafted so as to set for the statutory classes of invention in the alternative only. See, *Ex Parte Lyell*, 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990). See also, MPEP 2173.05(p).

Claim 11 is an improper hybrid claim in that it claims a printer (apparatus), yet depends from the method of claim 9.

Claim 12 is an improper hybrid claim in that it claims a computer-readable medium (apparatus), yet depends from the method of claim 9.

Claim 15 is an improper hybrid claim in that it claims a computer-readable medium (apparatus), yet depends from the method of claim 13.

Claim 22 is an improper hybrid claim in that it claims a computer-readable medium (apparatus), yet depends from the method of claim 16.

15. In the interest of compact prosecution, the application is further examined against the prior art, as stated below, upon the assumption that the applicants may overcome the above stated rejections under 35 U.S.C. 101.

General Comments re: Terminology

Upon review of the claims and specification, and interview with the attorney for the Applicant, the Examiner reads the limitation terms and phrases of the claims as follows, and they will be so read for the remainder of this Office Action:

A “**position-coding pattern** located on the surface and detectable by an optical sensor” is read as a pattern printed or provided on a page such that when perceived by an optical input device, the position on the page may be determined based on the pattern detected. See, disclosure, generally. The “position-coding pattern” is created by the placement of “marks” on the page that are readable by an optical scanner. The “position coding pattern” which is the underlying pattern that, when detected by an optical device, identifies to the processor where on the page the user is marking is not to be confused with the “identity pattern” which merely identifies the form type,

The term “**marks**” is not defined in the specification. It is noted that the term “marks and grid points” was added by an Amendment, filed October 11, 2005, which deleted the limitation wherein “*the position coding pattern utilizes displacements of dots in relation to a raster to code different symbol values*” and replaced it with the following:

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"each position is encoded by directions of displacements between a plurality of marks and grid points." The Examiner reads the claim limitation "mark" to be the same as a "dot," which was disclosed in the specification.

The term "**grid point**" is read by the Examiner as non-limiting non-functional descriptive language which merely describes the regular appearance of the "dots" or "marks" on the page. See discussion of "marks," above. The term "grid point" has no antecedent basis in either the specification or in the claim before it was amended. It is noted that a "grid" is a series of intersecting "grid lines," usually in perpendicular orientation. A "grid point" is read as the intersection of two "grid lines." Marks made in a grid-like pattern could be imagined as being located at the intersections of imaginary grid lines, or at the "grid points." Because the term is not specifically defined and subject to conjecture, yet fits the disclosed use of the "dots," or "marks," and in order to give meaning to the claim term, the Examiner reads the term "grid points" as non-limiting and merely descriptive of the general placement of the "marks."

The term "**form layout**" is read by the Examiner as being the printed form on the page that resembles the appearance of a normal form, including text and fields to be filled in by the user. In context of the claimed invention, the "form layout" is what a user would see and use as if using a standard form, whereas the processor receives a form identification by the user checking a particular box or scanning a bar code. Upon identifying the form, the processor then knows what type of data is expected to be

entered by the user onto the form, and the processor knows where to look on the page to receive that data. See, disclosure, paragraph [009].

An “**entry field**” is read as the area for user input printed on the page in the “form layout,” and the “entry field” is also read as the area the processor expects to receive data after the “form layout” is identified. See, disclosure, paragraph [012].

An “**identity pattern**” “indicating positions on the surface that may be marked to identify the form layout” is disclosed as a part of the form that identifies the form type to the processor. Examples of an “identity pattern” could include a simple check box indicating the form is a memo, or a phone message, or a fax, etc. An optical sensor in a pen may be used to detect which box is checked and indicate to the processor what areas of the writing surface should be used for input, and where that input should be sent. A disclosed example includes a bar code, which, when crossed by an optical receptor on a pen, will register the form type. If the “fax” bar code is swiped, the user may write a fax in the appropriate section of the page, and have the input transmitted by the processor as a fax. Similarly, if the box checked or bar code swiped indicates a schedule entry, then the user would input data to the appropriate area of the page, and the data would then be directed to the user’s schedule. See, disclosure, paragraphs [007]-[011]. The “identity pattern” which merely identifies the form type, is not to be confused with the “position coding pattern” which is the underlying pattern that, when detected by an optical device, identifies to the processor where on the page the user is

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marking.

Claims Rejection – 35 U.S.C. 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. **Claims 1-39** are rejected under 35 U.S.C. 103(a) as being unpatentable over Flickinger, et al. (U.S. Patent 5,629,499, issued May 13, 1997) [hereinafter "Flickinger"], in view of Sekendur (U.S. Patent 5,477,012, issued December 19, 1995) [hereinafter "Sekendur"].

Regarding **independent claim 1**, Flickinger in view of Sekendur teaches:

A form, comprising:

a surface;

a position-coding pattern located on the surface and detectable by an optical sensor,

wherein each position is encoded by directions of displacements between a plurality of marks and grid points;

a form layout on the surface indicating at least one entry field for receipt of information; and

an identity pattern on the surface indicating positions on the surface that may be marked to identify the form layout.

(In a broad reasonable interpretation, the claim reads on a page with a printed underlayment of symbols such that an optical sensor can track the location on the page by reading the underlying symbols, and, printed onto the page is a standard looking form with areas for user input of data. Finally, each form also contains an area to be scanned by the optical sensor such that the processor will know what form is being used so that the processor can manipulate the input appropriately. In other words, the claim reads on a specially printed orientation paper with a form printed on it and an area within the form to identify it to the processor when scanned by an optical sensor. As an example, a form printed on the special paper identified as an e-mail, wherein a certain location of page will receive data treated as an e-mail address, and a different area of the page will receive data treated as the e-mail message. Basically, the claim specifies 1) a page with underlying orientation marks, 2) a form printed on the page, and 3) a form identifier located on the form and readable by an optical sensor.

Flickinger teaches a form printed on a page with a form identifier ("identify pattern") as bar code, on the surface that may be marked (scanned) by an optical sensor to identify the form layout. See, Flickinger, figure 5, element 204, and col. 3, lines 16-67. See also, Flickinger, figure 5, element 206, and col. 4, lines 30-34, teaching checking a box on a form to indicate the identification ("identify pattern") of the form. Flickinger does not expressly teach a position-coding pattern located on the surface and detectable by an optical sensor wherein each position is encoded by

direction of displacements between a plurality of marks and grid points.

Sekendur teaches a coordinate sensor using an optical scanner reading "position-coding pattern" located on the surface and comprising a plurality of dots ("marks") in a grid point pattern. See, Sekendur, figures 1-5, and col. 4, line 12 through col. 5, line 9. Further, Sekendur teaches that the location of the marks is identified by the optical sensor reading the displacement between the marks. See, Sekendur, figures 1-5, and col. 4, lines 28-48.

Flickinger and Sekendur are combinable in that they both involve the art of locating information on a page using discrete points readable by a sensor in order to identify the location of the writing or entry of data by a user.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Flickinger and Sekendur.

The suggestion or motivation for making the combination is that Flickinger teaches locating a point of a user's position on a surface, such as a writing surface, and Sekendur teaches an alternate method for locating that point that is combinable and complimentary to that taught by Flickinger. Removing the coordinate location teaching of Flickinger would leave a system of an optical sensor working with writing on a form, and the electronics would be removed. Combining the teaching of Flickinger with that of Sekendur would result in a system of an optical sensor sensing the position of form entries by the identification of dots on a page. Both Flickinger and Sekendur teach optical identification of the form.

Therefore, it would have been obvious to one of ordinary skill in the art at the

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time of the invention to have combined the teachings of Flickinger and Sekendur to result in the inventions specified in claim 1.)

Regarding **dependent claim 2**, Flickinger in view of Sekendur teaches:

The form of claim 1, wherein the identity pattern comprises a bar code.

(See, Flickinger, col. 3, lines 65-68, teaching the use of a bar code as an “identify pattern.”)

Regarding **dependent claim 3**, Flickinger in view of Sekendur teaches:

The form of claim 1, wherein the identity pattern comprises a bar code that prevents the optical sensor from detecting the position-coding pattern on portions of the surface covered by bars of the bar code but allows the optical sensor to detect the position-coding pattern between the bars of the bar code.

(It would have been obvious to one of ordinary skill in the art at the time of the invention to print the identify pattern bar code so that it would not detect the underlying position-coding pattern for the obvious and beneficial purpose of making the bar code independently readable without incorporating potentially confusing input from images located between the lines of the bar code.

Similarly, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the underlying position-coding pattern readable so that the position of the bar code could be identified to the processor.)

Regarding **dependent claim 4**, Flickinger in view of Sekendur teaches:

The form of claim 1, wherein the identity pattern also indicates a scale of the form layout.

(See, Flickinger, col. 3, lines 16-59, teaching that all data relative to the form is incorporated through the form identification (identity pattern). Specifically see, Flickinger, col. 3, lines 45-47, teaching different forms in different scales as an inventory form and a bank check.)

Regarding **dependent claim 5**, Flickinger in view of Sekendur teaches:

The form of claim 1, wherein the identity pattern comprises a box for receipt of a cross.

(See, Flickinger, figure 5, element 206, and col. 4, lines 30-34, teaching checking a box on a form to indicate the identification ("identify pattern") of the form. The box for receipt of input is expressly taught, and Flickinger expressly teaches a "check-mark." A "check mark" was known to one of ordinary skill in the art at the time of the invention to be a general term for "a mark placed next to an item to show that it has been noted, verified, or approved." See, The American Heritage College Dictionary, Fourth Edition, Houghton Mifflin, 2002, definition of "check mark." It would have been obvious to one of ordinary skill in the art at the time of the invention to mark a pattern identity box with a "cross" as a means of indicating that the box was noted or to verify the form type.)

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Regarding **dependent claim 6**, Flickinger in view of Sekendur teaches:

The form of claim 1, wherein the entry field comprises a shape to be marked.

(See, Flickinger, figure 5, element 206, and col. 4, lines 30-34, teaching checking a box on a form to indicate the identification ("identify pattern") of the form. A box is a "shape to be marked.")

Regarding **dependent claim 7**, Flickinger in view of Sekendur teaches:

The form of claim 1, wherein the entry field comprises a scale that can be marked at a location to indicate a numerical rating.

(Flickinger in view of Sekendur teaches all the limitations of claim 1. Flickinger in view of Sekendur does not expressly teach the entry of data onto a form wherein the entry field comprises a scale that can be marked at a location to indicate a numerical rating.

The differences between claim 7 and claim 1 are only found in the non-functional descriptive material and are not functionally involved in the steps recited. The steps of marking of a form entry field with an optical sensor sensing the location of the mark and transferring that data to a processor would be the same whether the user was entering an indication of a line on a scale, an indication of a selection of a check box, of the entry of data in a text field. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability. See, *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a data field on a form where a user could mark to indicate a response on a scale.)

Regarding **dependent claim 8**, Flickinger in view of Sekendur teaches:

The form of claim 1, wherein the entry field comprises space for receiving handwritten information.

(See, Flicking, col. 4, lines 13-15, teaching that the user of the invention "just fills out the form or takes notes on a piece of paper with the board as a support, as one normally does in writing." See also, Sekendur, Abstract, teaching that the invention "might be used for determining the position of a pen/pencil on paper for handwriting data input.")

Regarding **independent claim 9**, Flickinger in view of Sekendur teaches:

A method for generating a form, comprising:
printing on a surface a position-coding pattern detectable by an optical sensor,
wherein the position coding pattern utilizes directions of displacements between a plurality of marks and grid points to code different symbol values;
printing on the surface a form layout indicating at least one entry field for receipt of information; and
printing on the surface an identity pattern indicating positions on the surface whose arrangement identifies the form layout.

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(Claim 9 incorporates substantially similar subject matter as claimed in claim 1 and is rejected along the same rationale.)

Regarding **dependent claim 10**, Flickinger in view of Sekendur teaches:

The method of claim 9, wherein printing on the surface the form layout comprises printing the form layout at a known location relative to the position-coding pattern.

(See, Flickinger, col. 4, lines 30-34, teaching to locate form identification check boxes (form layout) at different known positions to identify different forms.)

Regarding **dependent claim 11**, Flickinger in view of Sekendur teaches:

A printer adapted to perform the method of claim 9.

(It is noted that claim 11 is an improper hybrid claim, claiming an apparatus depending from a method claim. Claim 11 incorporates substantially similar subject matter as claimed in claim 9 and is rejected along the same rationale.)

Regarding **dependent claim 12**, Flickinger in view of Sekendur teaches:

A computer-readable medium having computer-executable instructions for performing the method of claim 9.

(It is noted that claim 12 is an improper hybrid claim, claiming an apparatus depending from a method claim. Claim 12 incorporates substantially similar subject matter as claimed in claim 9 and is rejected along the same rationale.)

Regarding **independent claim 13**, Flickinger in view of Sekendur teaches:

A method for generating a form, comprising:
on a surface having a position-coding pattern detectable by an optical
sensor, wherein the position coding pattern utilizes directions of displacements
between a plurality of marks and grid points to code different symbol values,
printing a form layout indicating at least one entry field for receipt of information;
and
printing on the surface an identity pattern indicating positions on the
surface whose arrangement identifies the form layout.

(Claim 13 incorporates substantially similar subject matter as claimed in claim 1 and is rejected along the same rationale.)

Regarding **dependent claim 14**, Flickinger in view of Sekendur teaches:

The method of claim 13, wherein printing on the surface the form layout
comprises printing the form layout at a known location relative to the position-
coding pattern.

(Claim 14 incorporates substantially similar subject matter as claimed in claim 10 and is rejected along the same rationale.)

Regarding **dependent claim 15**, Flickinger in view of Sekendur teaches:

A computer-readable medium having computer-executable instructions for

performing the method of claim 13.

(It is noted that claim 15 is an improper hybrid claim, claiming an apparatus depending from a method claim. Claim 15 incorporates substantially similar subject matter as claimed in claim 13 and is rejected along the same rationale.)

Regarding **independent claim 16**, Flickinger in view of Sekendur teaches:

A method for processing a form, comprising:

receiving from an optical sensor position data corresponding to movement of a device containing the optical sensor over a surface having a position-coding pattern detectable by the optical sensor,

wherein the position coding pattern utilizes directions of displacements between a plurality of marks and grid points to code different symbol values;

determining from the position data a form layout printed on the surface;

and

determining from the position data an information entry in an entry field defined by the form layout.

(Claim 16 incorporates substantially similar subject matter as claimed in claim 1 and is rejected along the same rationale.)

Regarding **dependent claim 17**, Flickinger in view of Sekendur teaches:

The method of claim 16, further comprising storing the information entry in a database.

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(See, Flickinger, col. 4, lines 3-18, and col. 4, lines 36-48, teaching teaches storing the data.)

Regarding **dependent claim 18**, Flickinger in view of Sekendur teaches:

The method of claim 16, further comprising:

translating the information entry into a non-handwritten format based on a type of information expected to be received in the entry field; and
storing the translated information entry in a database.

(See, Flickinger, col. 4, lines 3-18, and col. 4, lines 36-48, teaching translating the information entry into a non-handwritten format based on a type of information expected to be received in the entry field.)

Regarding **dependent claim 19**, Flickinger in view of Sekendur teaches:

The method of claim 16, further comprising:

translating the information entry into a result of a type chosen from the group consisting of Boolean variable, whole number, real number, and text string;
and
storing the result in a database.

(See, Flickinger, col. 4, lines 3-18, and col. 4, lines 36-48, teaching storage of information as a text string.)

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Regarding **dependent claim 20**, Flickinger in view of Sekendur teaches:

The method of claim 16, wherein determining from the position data the form layout printed on the surface comprises:

determining a sub-portion of the position data located in a predetermined area of the position-coding pattern;

finding a match to the sub-portion in a plurality of known identity patterns representing possible form layouts; and

determining the form layout corresponding to the match.

(See, Flickinger, col. 4, lines 16-64, and col. 4, lines 3-18, teaching determining a sub-portion of a plurality of position data in a form layout in a predetermined area, and finding a match to the sub-portion, and determining the form layout corresponding to the match. Specifically, Flickinger teaches, in one embodiment, to mark boxes located on different areas of the form to identify the form which is then used by the system.)

Regarding **dependent claim 21**, Flickinger in view of Sekendur teaches:

The method of claim 16, wherein determining from the position data the information entry in the entry field defined by the form layout comprises
determining a sub-portion of the position data whose location falls in an area of the position-coding pattern known to be encompassed by the entry field.

(See, Flickinger, col. 4, lines 16-64, and col. 4, lines 3-18, teaching determining a sub-portion of a plurality of position data in a form layout in a predetermined area, and finding a match to the sub-portion, and determining the form layout corresponding to the

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match. Specifically, Flickinger teaches, in one embodiment, to mark boxes located on different areas of the form to identify the form which is then used by the system. See also, Flickinger, figure 5, element 206 appearing within the data entry field.)

Regarding **dependent claim 22**, Flickinger in view of Sekendur teaches:

A computer-readable medium having computer-executable instructions for performing the method of 16.

(It is noted that claim 22 is an improper hybrid claim, claiming an apparatus depending from a method claim. Claim 22 incorporates substantially similar subject matter as claimed in claim 16 and is rejected along the same rationale.)

Regarding **independent claim 23**, Flickinger in view of Sekendur teaches:

A method for electronically collecting information from forms, the method comprising:

providing a user with a form, the form containing printed indicia on a foreground thereof prompting the user to associate written information with the printed indicia, wherein the form further includes preprinted coded information in the background thereof, wherein the preprinted coding information utilizes the directions of displacements between a plurality of marks and grid points to code different symbol values;

encouraging the user to fill in portions of the form using an implement capable of marking the form, the implement being further capable of detecting

the preprinted coded information over which the implement passes and generating a signal in response thereto; and electronically receiving the signal and translating the signal into information reflecting an intention of the user.

(Claim 23 incorporates substantially similar subject matter as claimed in claim 1 and, in light of the following, is rejected along the same rationale. It is inherent in the construction of a form with the specified functions that the form would be provided to a user who would be “encouraged” to fill in the form.)

Regarding **dependent claim 24**, Flickinger in view of Sekendur teaches:

The method of claim 23, further including storing in a database the information reflective of the user's intention.

(Flickinger in view of Sekendur teaches all the limitations of claim 23. In addition, Flickinger teaches storing the data. See, Flickinger, col. 4, line 13.

The differences between claim 24 and claim 23 are only found in the non-functional descriptive material and are not functionally involved in the steps recited. The steps of marking of a form entry field with an optical sensor sensing the location of the mark, encouraging a user to fill in the form, and transferring the user's data to a processor would be the same whether the information stored was “reflective of the user's intentions” or not. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability. See, *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d

1031 (Fed. Cir. 1994).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to store data from a filled in form, regardless of the limitation of the user's intentions regarding the data.)

Regarding **dependent claim 25**, Flickinger in view of Sekendur teaches:

The method of claim 23, wherein the form is printed on a material chosen from the group consisting of paper stock, plastic, and laminate.

(See, Sekendur, Abstract, teaching that the invention "might be used for determining the position of a pen/pencil on paper for handwriting data input.")

Regarding **dependent claim 26**, Flickinger in view of Sekendur teaches:

The method of claim 23, wherein the written information is hand-written.

(See, Flicking, col. 4, lines 13-15, teaching that the user of the invention "just fills out the form or takes notes on a piece of paper with the board as a support, as one normally does in writing." See also, Sekendur, Abstract, teaching that the invention "might be used for determining the position of a pen/pencil on paper for handwriting data input.")

Regarding **dependent claim 27**, Flickinger in view of Sekendur teaches:

The method of claim 23, wherein the implement is in the form of a pen having an optical code reader therein.

(See, Sekendur, figure 6, and col. 4, line 50 through col. 6, line 35, teaching the pen

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with an optical code reader therein.)

Regarding **dependent claim 28**, Flickinger in view of Sekendur teaches:

The form of claim 1, wherein each mark is uniquely associated with a grid point.

(It is noted that pursuant to the Examiner's reading of the term "grid marks" as being a non-limiting non-functional descriptive term inherent in the regular appearance of the marks, the grid point are inherently uniquely associated with the marks.)

Regarding **dependent claim 29**, Flickinger in view of Sekendur teaches:

The form of claim 1, wherein the grid points are derived from the marks.
(It is noted that pursuant to the Examiner's reading of the term "grid marks" as being a non-limiting non-functional descriptive term inherent in the regular appearance of the marks, the grid point are inherently derived from the marks.)

Regarding **dependent claim 30**, Flickinger in view of Sekendur teaches:

The form of claim 1, wherein a single mark contributes to at least two different positions.

(See, Sekendur, figure 4a, teaching a single mark, the square in the grid, contributing both the X and Y coordinates. See also, Sekendur figures 1 and 2, and col. 4, lines 28-41, teaching that a single dot may contribute to three positions.)

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Regarding **dependent claim 31**, Flickinger in view of Sekendur teaches:

The form of claim 1, wherein the grid points are undetectable by the optical sensor.

(See, Sekendur, claim 9, teaching a selective decoder means, which can select which of a plurality of coding means to select.)

Regarding **dependent claim 32**, Flickinger in view of Sekendur teaches:

The form of claim 1, wherein the plurality of marks comprises dots.

(See, Sekendur, figures 1-3, teaching marks comprising dots.)

Regarding **dependent claim 33**, Flickinger in view of Sekendur teaches:

The method of claim 16, wherein the plurality of marks comprises dots.

(Claim 33 incorporates substantially similar subject matter as claimed in claim 32 and is rejected along the same rationale.)

Regarding **dependent claim 34**, Flickinger in view of Sekendur teaches:

The method of claim 23, wherein the plurality of marks comprises dots.

(Claim 34 incorporates substantially similar subject matter as claimed in claim 32 and is rejected along the same rationale.)

Regarding **dependent claim 35**, Flickinger in view of Sekendur teaches:

The form of claim 1 wherein the position coding pattern includes a mark

present at every grid point.

(See, Sekendur, figures 1-5, teaching marks in a position coding pattern applied at every grid point.)

Regarding **dependent claim 36**, Flickinger in view of Sekendur teaches:

The method of claim 9 wherein the position coding pattern includes a mark present at every grid point.

(Claim 36 incorporates substantially similar subject matter as claimed in claim 35 and is rejected along the same rationale.)

Regarding **dependent claim 37**, Flickinger in view of Sekendur teaches:

The method of claim 13 wherein the position coding pattern includes a mark present at every grid point.

(Claim 37 incorporates substantially similar subject matter as claimed in claim 35 and is rejected along the same rationale.)

Regarding **dependent claim 38**, Flickinger in view of Sekendur teaches:

The method of claim 16 wherein the position coding pattern includes a mark present at every grid point.

(Claim 38 incorporates substantially similar subject matter as claimed in claim 35 and is rejected along the same rationale.)

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Regarding **dependent claim 39**, Flickinger in view of Sekendur teaches:

The method of claim 23 wherein the position coding pattern includes a mark present at every grid point.

(Claim 39 incorporates substantially similar subject matter as claimed in claim 35 and is rejected along the same rationale.)

17. It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art.

See, MPEP 2123.

Response to Arguments

Applicant's arguments filed March 22 and June 9, 2006 have been fully considered, but they are not persuasive.

Regarding Applicant's Interview Summary, filed June 16, 2006:

Applicant's attorney states that he "presumed" that the Examiner and Primary Examiner agreed with his statements concerning the teachings of the references and their interpretation.

The Examiner disagrees with Applicant's attorney's presumption.

The Examiners' position was stated at the outset of the interview to receive such

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argument as the Attorney wished to present and to respond to written arguments after careful consideration of the attorney's oral arguments in light of the written arguments. See, Examiner's Interview Summary, filed in this case.

Regarding rejections of independent claim 1:

Applicant argues that the prior art reference fail to teach or suggest at least: "a position coding pattern . . . wherein each position is encoded by directions of displacements between a plurality of marks and grid points." See, Amendment, March 22, 2006, page 2.

The Examiner disagrees.

Sekendur teaches a position coding pattern. See, Sekendur, figures 1-5a, and col. 2, line 12 through col. 4, line 59.

As explained in the section above discussing terminology, the term "grid point" was not taught in the specification, and the Examiner reads it as having been intended by the Applicant to apply to the intersection of lines described by the regular appearance of the marks. The "marks" are read as having been intended by the Applicant to be the dots or other indicia printed on the surface for position code patterning. Sekendur clearly teaches such dots, marks and grid points in figures 1-5a, and col. 2, line 12 through col. 4, line 59.

Sekendur teaches position encoded by directions of displacements between a plurality of marks and grid points. See, Sekendur, figures 1-5a, and col. 2, line 12 through col. 4, line 59, particularly, col. 4, lines 15-49. For example, Sekendur clearly

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teaches displacement between a plurality of marks as shown in figures 1a, 2, 4a, and 5a, in which the marks are displaced within the elements indicating position. The elements themselves may be read either as grid points themselves, as containing grid points according to the marks, or as fitting into the larger picture as grid points within figures 1, 3, 4, or 5.

Regarding rejections of independent claims 9, 13, and 16:

Applicant argues that the prior art reference fail to teach or suggest at least: “a position-coding pattern . . . wherein each position coding pattern utilizes directions of displacements between a plurality of marks and grid points.” See, Amendment, March 22, 2006, page 2.

The Examiner disagrees.

Again, as explained in the section above discussing terminology, the term “grid point” was not taught in the specification, and the Examiner reads it as having been intended by the Applicant to apply to the intersection of lines described by the regular appearance of the marks. The “marks” are read as having been intended by the Applicant to be the dots or other indicia printed on the surface for position code patterning. Sekendur clearly teaches such dots, marks and grid points in figures 1-5a, and col. 2, line 12 through col. 4, line 59.

Sekendur teaches position encoded by directions of displacements between a plurality of marks and grid points. See, Sekendur, figures 1-5a, and col. 2, line 12 through col. 4, line 59, particularly, col. 4, lines 15-49. For example, Sekendur clearly

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teaches displacement between a plurality of marks as shown in figures 1a, 2, 4a, and 5a, in which the marks are displaced within the elements indicating position. The elements themselves may be read either as grid points themselves, as containing grid points according to the marks, or as fitting into the larger picture as grid points within figures 1, 3, 4, or 5.

Regarding rejections of independent claim 23:

Applicant argues that the prior art reference fail to teach or suggest at least: "wherein the preprinted coding information utilizes the directions of displacements between a plurality of marks and grid points to code different symbol values." See, Amendment, March 22, 2006, page 2.

The Examiner disagrees.

Again, as explained in the section above discussing terminology, the term "grid point" was not taught in the specification, and the Examiner reads it as having been intended by the Applicant to apply to the intersection of lines described by the regular appearance of the marks. The "marks" are read as having been intended by the Applicant to be the dots or other indicia printed on the surface for position code patterning. Sekendur clearly teaches such dots, marks and grid points in figures 1-5a, and col. 2, line 12 through col. 4, line 59.

Sekendur teaches the displacement between a plurality of marks and grid points to code different symbol values, as is clearly shown in figure 2, and explained at col. 4, lines 28-41.

Regarding rejections of independent claims 1, 9, 13, 16, and 23:

Applicant argues that "one of ordinary skill in the art would not be motivated to combine the separate and distinct embodiments [disclosed in Sekendur] for determining position information, as this would unnecessarily complicate decoding the pattern."

See, Amendment, March 22, 2006, page 4.

The Examiner disagrees.

The teachings of the various embodiments of markings to indicate position information, as taught by Sekendur, was not combined in the rejection of the claims. Therefore, Applicant's arguments are moot.

Regarding rejections of dependent claims 2-8, 28, 29, and 32:

Applicant argues that dependent claims 2-8, 28, 29, and 32, are at least allowable by virtue of the argued allowability of independent claims 1, 9, 13, 16, and 23, from which the claims depend. See, Amendment, March 22, 2006, pages 4-5.

The Examiner disagrees.

Independent claims 1, 9, 13, 16, and 23 have been rejected, and for the reasons cited in the rejection of the independent claims, along with the reasons for rejection of the dependent claims, the dependent claims are not in a condition for allowance.

Regarding rejections of dependent claims 30-31:

Applicant argues that it is not necessary to combine the teachings of Hecht with

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that of Flickinger and Sekendur because Hecht teaches an encoding scheme that is not works differently from Sekendur's scheme, and argues further that the combination is not necessary in that Sekendur already teaches an encoding scheme.

The Examiner agrees that Hecht is not necessary as a reference in combination with Flickinger and Sekendur for rejection of claims 30-31. However, claims 30-31 are rejected on the combination of the two references alone, as stated above.

Conclusion

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Individuals associated with the filing or prosecution of a patent application are reminded of their obligations pursuant to 37 CRF 1.56. See generally, MPEP 2001 and subsections.

Any inquiry concerning this communication or earlier communications from the

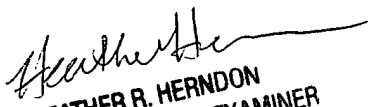
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examiner should be directed to Michael K. Botts whose telephone number is 571-272-5533. The examiner can normally be reached on Monday through Friday 8:00-4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 571-272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MKB/mkb


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